

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### ILC Dover Inc.

#### Delaware Manufacturing Extension Partnership

#### Ilc Dover Takes Lean Manufacturing 'Out Of This World'

##### Client Profile:

ILC Dover, Inc. is located in Frederica, Delaware. The company manufactures products ranging from advertising blimps to components of space suits. In the early 1960s, the company followed the natural progression from manufacturing flight suits and chemical and biohazard suits to make components for space suits. ILC Dover currently has less than 500 employees.

##### Situation:

Gloves are the most complicated single component of a space suit and the most difficult to fabricate because astronauts need considerable manual dexterity. NASA's increase in its mission and shuttle astronaut complement required ILC Dover to triple its production of space suit gloves; however, output was limited by the availability of production space and expert, highly trained sewers. Lacking the resources to expand, the company contacted the Delaware Manufacturing Extension Partnership (DEMPEP), a NIST MEP network affiliate, to help increase capacity using existing resources.

##### Solution:

DEMPEP used its "Pathways to Success" model to design a program for ILC Dover. DEMPEP designed the plan specifically to help the company identify opportunities for improvement, develop and design an implementation plan, provide training for both management and production workers, and implement the plan. Everyone who worked on the glove--from management and engineers to production personnel--received on-site training. A value stream mapping exercise helped ILC Dover focus on glove components with the greatest potential for the elimination of production delays and bottlenecks. Improvement also required a paradigm change in the plant. Focus is now on productivity, and recruitment of new personnel has become more selective. Overall, ILC reduced its labor hours in glove production by nearly 40 percent, with some components realizing labor savings as high as 75 percent. Product quality has shown significant improvement. Based on the success of its glove department, ILC Dover plans to implement lean principles in other areas of space suit production as well as non-production functions.

##### Results:

Reduced labor hours by 40 to 75 percent.

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

Eliminated need for overtime.

Achieved a 25 to 30 percent reduction in space requirements for glove assembly.

Cut cycle times in half.

Improved product quality.

Reduced work-in-process by 30 percent.

### **Testimonial:**

"We couldn't have done it without the Delaware Manufacturing Extension Partnership. They knew how to apply lean principles to our type of business; they made our people feel comfortable with the process and showed them how to eliminate waste without changing the essential elements of the job."

Peter Halewski, Director of Manufacturing